

# **Audit**



# **Report**

OFFICE OF THE INSPECTOR GENERAL

**CONTRACTOR'S PERFORMANCE ON THE FAMILY  
OF MEDIUM TACTICAL VEHICLES PROGRAM**

Report No. 96-020

November 1, 1995

**Department of Defense**

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### **Acronyms**

ACO	Administrative Contracting Officer
DPRO	Defense Plant Representative Office
FPVI	First Production Vehicle Inspection
FMTV	Family of Medium Tactical Vehicles
GAO	General Accounting Office
LRIP	Low-Rate Initial Production



**INSPECTOR GENERAL**  
**DEPARTMENT OF DEFENSE**  
**400 ARMY NAVY DRIVE**  
**ARLINGTON, VIRGINIA 22202-2884**



November 1, 1995

**MEMORANDUM FOR AUDITOR GENERAL, DEPARTMENT OF THE ARMY**

**SUBJECT: Audit Report on the Contractor's Performance on the Family of Medium Tactical Vehicles Program (Report No. 96-020)**

We are providing this report for review and comments. This report is the second of three reports addressing the acquisition of the Family of Medium Tactical Vehicles. Comments on a draft report were considered in preparing this report.

DoD Directive 7650.3. requires that all recommendations be resolved promptly. Therefore, we request that the Army provide additional comments on Recommendations 1.b. and 2. by January 2, 1996.

We appreciate the courtesies extended to the audit staff. If you have questions on this audit, please contact Mr. Rayburn H. Stricklin, Program Director, at (703) 604-9051 (DSN 664-9051) or Mr. Robert L. Shaffer, Project Manager, at (703) 604-9043 (DSN 664-9043). The distribution of this report is in Appendix L. A list of audit team members is inside the back cover.

Robert J. Lieberman  
Assistant Inspector General  
for Auditing

## Office of the Inspector General, DoD

Report No. 96-020

(Project No. 5AL-0003.02)

November 1, 1995

### Contractor's Performance on the Family of Medium Tactical Vehicles Program

#### Executive Summary

**Introduction.** This report is the second of three reports addressing the acquisition of the Family of Medium Tactical Vehicles (FMTV). The first report addressed the Army's conditional acceptance of incomplete vehicles. This report addresses certain matters concerning the Contractor's performance and the Army's funding of the FMTV Program.

The Army's medium tactical vehicle inventory, which consisted of approximately 95,460 2-1/2-ton and 5-ton vehicles, was costly to maintain and operate. Also, the 2-1/2-ton vehicle had key operational limitations. The Army planned to modernize the medium tactical vehicle inventory through the FMTV Program. The FMTV Program features non-developmental items whereby existing commercial components are modified as required and integrated into vehicles intended to meet military needs.

The FMTV Program was structured to acquire 85,401 medium tactical vehicles by FY 2021. The Army estimated that the total cost of the Program would be \$16.3 billion (then-year dollars). In October 1991, the Army awarded a 5-year, firm-fixed-price contract, valued at \$1.2 billion, to Stewart and Stevenson Services, Incorporated (the Contractor), for the production of 10,843 vehicles. As of June 30, 1995, the FMTV Program was about 18 months behind schedule.

**Audit Objectives.** The overall audit objective was to evaluate the Army's efforts to produce and field medium tactical vehicles. The audit was made using the Inspector General, DoD, critical program management element approach for a system in the production and deployment phase of the acquisition cycle. We also evaluated the adequacy of management controls related to the program management elements.

**Audit Results.** The Contractor for the FMTV Program had not attained the level of production necessary to meet contractual delivery schedules. As a result, the Army had spent \$316 million on the production contract as of May 31, 1995, but had not received a single vehicle suitable for fielding out of 4,146 vehicles scheduled for delivery. Also, the Contractor's delinquency resulted in about \$21 million in added costs to maintain vehicles 14 to 25 years old and continued use of old vehicles could result in adverse readiness consequences (Page 4).

We also observed that the FMTV Program was not fully funded. However, the Deputy Secretary of Defense directed that the Director, Program Analysis and Evaluation, determine the adequacy of funding for the FMTV Program as part of the FYs 1997-2001 Program Review (Appendix C).

Recommendations in this report, if implemented, will help the Army assure that the Contractor meets delivery schedules before the Army makes a significantly larger investment, allow it to recover costs incurred as a result of delays in Contractor's performance, and determine whether it needs a second contractual source for medium tactical vehicles. Appendix J summarizes the potential benefits of the audit.

**Summary of Recommendations.** We recommend revising the delivery schedule, holding the Contractor accountable to meet the revised delivery schedule, including a liquidated damages clause in future contracts for the FMTV Program, and determining the need for a second source for medium tactical vehicles.

**Management Comments.** The Director, U.S. Army Contracting Support Agency, provided comments for the Army on this report. The full text of the Army comments is in Part III. The Army concurred with the recommendations for revising the delivery schedule and holding the Contractor accountable to meet the revised delivery schedule. The Army nonconcurred with the recommendation to include a liquidated damages clause in existing and future contracts for the FMTV. The Army stated that it had no intention of modifying the existing production contract to incorporate a liquidated damages clause. Also, the Army stated that it would determine the appropriateness of including the clause in future production contracts. The Director, U.S. Army Contracting Support Agency, did not specify concurrence or nonconcurrence with the recommendation to determine the need for a second source for medium tactical vehicles. He stated that it had performed analyses of the cost of developing a second source and determined that sufficient funding was not available to develop a second source.

**Audit Response.** No further comments are required on the recommendations for revising the delivery schedule and holding the Contractor accountable to meet the revised delivery schedule.

After evaluating the Army comments on the recommendation to include a liquidated damages clause in existing and future contracts for the FMTV, we revised the recommendation to state that the Procuring Contracting Officer should include a liquidated damages clause in future contracts of the FMTV. Therefore, we ask the Procuring Contracting Officer to provide his position on the revised recommendation.

The Director's comments on the recommendation to determine the need for a second source for medium tactical vehicles were not fully responsive. Although the Director stated that the Army had analyzed the cost of developing a second source, he did not address the cost benefit results of the analyses and implied that the principal barrier was the lack of sufficient funding to develop a second source. Also, the Director did not address how a single contractor can produce enough vehicles to significantly reduce the average age of the Army's medium tactical vehicles. As such, we ask that the Army Acquisition Executive provide additional comments to this report.

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## **Part I - Audit Results**

### Audit Background

The Army's medium tactical vehicle inventory, which consisted of approximately 95,460 2-1/2-ton and 5-ton vehicles, was costly to maintain and operate. The Family of Medium Tactical Vehicles (FMTV) consists of a family of vehicles based on a common vehicle chassis that is designed to perform line haul, local haul, and unit resupply. The Army plans to field 2-1/2-ton tactical vehicles in cargo and van variants and 5-ton vehicles in cargo, material-handling, dump truck, wrecker, expansible van, tanker, and tractor configurations. The FMTV is to operate worldwide as multi-purpose transportation and unit mobility vehicles on primary and secondary roads, trails, and cross-country terrain. As of June 8, 1995, the Army planned to acquire 85,401 medium tactical vehicles. The Army estimated that the total cost of the FMTV Program would be \$16.3 billion (then-year dollars).

The FMTV Program is an Acquisition Category IC Program in the production and deployment phase of the acquisition cycle. DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," describes an Acquisition Category IC as major defense acquisition programs that have unique statutorily imposed acquisition strategy, execution, and reporting requirements. The cognizant DoD Component head, or, if delegated, the DoD Component Acquisition Executive has milestone decision authority for Acquisition Category IC programs. The Army Acquisition Executive has milestone decision authority for the FMTV Program.

The Army's acquisition strategy for the FMTV Program features non-developmental items: existing commercial components are modified as required and integrated into vehicle configurations to meet military needs. The acquisition strategy also provided for a two-phased procurement program.

**Prototype Phase.** The prototype phase encompassed competition between three contractors who each produced 15 vehicles and 5 trailers. The strategy required a competitive hardware demonstration of the prototypes before a competitive "ride before you buy" production source selection. In effect, the prototype phase combined Milestone I, Concept Demonstration and Validation, and Milestone II, Engineering and Manufacturing Development. The Army awarded three contracts valued at \$46.0 million during the prototype phase of the Program.

On June 30, 1991, the Army Acquisition Executive approved the FMTV Program for low-rate initial production (LRIP).

**Production Phase.** The production phase of the acquisition strategy started in October 1991 with the award of a 5-year contract, valued at \$1.2 billion, to Stewart and Stevenson Services, Incorporated (the Contractor), for the production of 10,843 vehicles. The production phase provided for concurrent initial production testing and initial operational testing and evaluation. The production contract limited LRIP to 200 vehicles per month and provided for progression to full-rate production.



On August 14, 1995, the Army Acquisition Executive approved the FMTV Program for full-rate production.

DoD Instruction 5000.2, "Defense Acquisition Policies and Procedures," defines LRIP as the production of a system, in limited quantity to:

- o provide production-configured or -representative articles for operational testing,
- o establish an initial production base, and
- o permit an orderly increase in the production rate so that full-rate production will start after successful completion of operational testing.

The FMTV Program Office, located at the Army Tank-automotive and Armaments Command, Warren, Michigan, manages the FMTV Program under the direction of the Program Executive Officer for Tactical Wheeled Vehicles.

## Audit Objectives

The overall objective of the audit was to evaluate the Army's efforts to produce and field medium tactical vehicles. The audit was conducted in accordance with the Inspector General, DoD, program management element approach. Therefore, the audit included evaluations of affordability, acquisition planning and risk management, engineering and manufacturing, logistics, contract performance management, and contracting. We also evaluated the adequacy of management controls related to the program management elements. See Appendix A for the material management control weakness that we identified and the audit scope and methodology. See Appendix B for a summary of prior audit coverage related to the objectives. See Appendix C for another matter of interest concerning full funding of the FMTV Program that did not result in a recommendation.

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## **Contractor's Performance**

The Contractor for the FMTV Program had not attained the level of production necessary to meet contractual delivery schedules. The primary reason that the Contractor was unable to meet delivery schedules was the Contractor proceeded with extensive production before resolving significant conditions that impacted its ability to produce vehicles. Another contributing factor was that the Army did not hold the Contractor accountable for meeting delivery schedules and other provisions of the contract. As a result, the Army spent \$316 million on the production contract as of May 31, 1995, but had not received a single vehicle suitable for fielding. If corrective action is not taken, the Army could make a significantly larger investment in vehicles that are not fieldable. Also, the Contractor's delinquency resulted in serious cost and readiness consequences for the DoD.

## **Criteria on Contractor Accountability**

Federal Acquisition Regulation, Section 42.1103, states that contractors are responsible for timely contract performance. The Federal Acquisition Regulation also states that the Government will maintain surveillance of contractors' performance as necessary to protect its interests.

According to the Federal Acquisition Regulation, the contracting officer should issue a cure notice to a contractor when evidence shows that the contractor may not meet contractual requirements, such as delivery schedules. The cure notice will inform the contractor that the Government considers the contractor's performance a condition that is endangering performance of the contract. The cure notice should provide a realistic period to correct the condition.

The Federal Acquisition Regulation also states that, if a contractor fails to deliver supplies or perform services within the time specified in the contract or perform any other provision of the contract, the contracting officer must decide whether the Government's best interest would be to terminate the contract for default. Further, if the contracting officer decides that a termination for default is appropriate, the contracting officer should notify the contractor in writing of the possibility of the termination. This notice shall call the contractor's attention to the contractual liabilities if the contract is terminated for default and request the contractor to show cause why the contract should not be terminated for default. The notice may further state that failure of the contractor to present an explanation may be taken as an admission that no valid explanation exists.

The contracting officer is not required to send a notice of the possibility of termination for default to the contractor before the actual notice of termination.

However, if the Government has taken any action that may be construed as a waiver of the contract delivery or performance date, the contracting officer shall send a notice to the contractor setting a new date for the contractor to make delivery or complete performance.

## **Contractual Delivery Schedule**

On October 11, 1991, the Army awarded Contract DAAE07-91-C-R001 to Stewart and Stevenson Services, Incorporated (the Contractor), for 10,843 vehicles of the FMTV Program. The table shows the delivery dates required in the original contract, the revised delivery dates required by modification P00013 of the contract, and the quantities of vehicles to be delivered by those dates.

### **Delivery Schedule in Original Contract and Its Modification**

<u>Program Year*</u>	<u>Delivery Dates</u>		<u>Quantity</u>
	<u>Original Contract</u>	<u>Modification P00013</u>	
1	1-31-93	10-31-93	277
2	12-31-93	4-30-94	1,197
3a	12-31-94	4-30-95	1,611
3b	12-31-94	4-30-95	773
4	12-31-95	4-30-96	3,461
5	12-31-96	12-31-96	<u>3,524</u>
Total			<b>10,843</b>

\*Program years 1 through 3a are low-rate initial production and program years 3b through 5 are full-rate production.

## **Contractor's Performance**

As of January 1993, the Contractor had delivered none of the 277 vehicles originally scheduled for delivery by that date. By August 1993, the Contractor had delivered only 163 of the 1,247 vehicles that we determined were originally required for delivery through August 1993. Further, none of the 163 vehicles were complete. Due to the Contractor's delinquency, the Procuring Contracting Officer issued modification P00013, dated August 31, 1993, revising the delivery schedule.

The Contractor also was unable to meet the delivery schedule in modification P00013. As of April 30, 1995, the Contractor should have delivered 3,858 vehicles. However, as of that date, the Contractor had produced only 1,797 vehicles. Further, all 1,797 vehicles had missing and nonconforming parts; extensive retrofits will be necessary to complete the vehicles. See Appendix D for examples of the missing and nonconforming parts for a vehicle. The

## Contractor's Performance

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Contractor was responsible for making all modifications required to bring the vehicles to the approved configuration baseline. Specifically, the contract stated that:

Deficiencies disclosed as the result of testing shall be cause for rejection of vehicles/components being tested and produced subsequent to the First Production Vehicle Inspection, until the Government has accepted the Failure Analysis and Corrective Action by the Contractor. Deficiencies found during or as a result of First Article and Production Qualification Testing [Initial Production Testing], shall be prima facie evidence that all vehicles/components already produced prior to completion of First Article and Production Qualification Testing [Initial Production Testing] are similarly deficient. Such deficiencies on all vehicles/components shall be corrected by the contractor at no additional cost to the Government.

## Premature Production Decision

The primary reason that the Contractor was unable to meet delivery schedules was because the Contractor proceeded with extensive production before:

- o determining the operational effectiveness and suitability of the variants of the FMTV Program,
- o demonstrating that vehicles satisfy reliability requirements,
- o stabilizing the design of the vehicles,
- o establishing a product configuration baseline,
- o establishing a production line that was representative of a normal manufacturing process,
- o resolving problems with parts shortages, and
- o resolving deficiencies in the Contractor's quality control procedures.

**Operational Effectiveness and Suitability of Vehicles in the FMTV Program.** The Contractor had not demonstrated that the variants produced in the FMTV Program were operationally effective and suitable. The Army had conducted an initial production test and an initial operational test and evaluation of vehicles in the FMTV Program. However, the vehicles did not pass either test. See Appendix E for the results of the prior initial production test, initial operational test and evaluation, and other tests conducted.

The Commander, Operational and Technical Evaluation Command, started the second initial production test in February 1995 and the third initial operational test and evaluation in March 1995.

**Reliability Requirements.** Before February 1995, the Contractor had not demonstrated that it could build vehicles that meet the reliability requirements. The Commander, Operational and Technical Evaluation Command, restarted initial production testing in February 1995. The initial production testing was completed on June 12, 1995.

Preliminary results of the initial production testing indicated that all five variants of the FMTV that the Army was testing were exceeding reliability and maintainability requirements of the contract. Officials of the Army Materiel Systems Analysis Agency expected that the variants would pass reliability testing. However, the vehicles used for initial production testing were not representative of the vehicles that were being produced. See Appendix F for a discussion of how the vehicles used for initial production testing and the vehicles used in the initial operational test and evaluation did not represent the production vehicles.

**Design Changes.** The Contractor had not stabilized the design for vehicles in the FMTV Program. The Contractor continued to make design changes, as evidenced by the volumes of test incident reports, failure analysis and corrective action reports, engineering change requests, and notices of revisions to engineering drawings. The Contractor projected that the final technical data package will be submitted to the Army Tank-automotive and Armaments Command for approval in July 1996. See Appendix G for a description of the extensive design changes to the vehicles of the FMTV Program.

**Configuration Baseline.** The Contractor had not established a product configuration baseline. DoD Instruction 5000.2, Part 9, states that configuration audits will verify and document that the configuration item and its configuration identification agree, are complete and accurate, and satisfy program requirements.

As of July 3, 1995, the Contractor had completed only 20 of 93 required physical configuration audits. In terms of the actual number of drawings involved, the Contractor performed a formal physical configuration audit on only 133 of a projected 3,219 drawings. The Contractor projected that the final physical configuration audit will be performed in December 1996. Physical configuration audits evaluate the adequacy, accuracy, and completeness of the technical data package. The physical configuration audits serve to validate the hardware as being representative of the technical data package. Physical configuration audits cannot be performed without complete level III drawings.

The FMTV Program will not have an established product configuration baseline for each variant until satisfactory completion of the physical configuration audits for that variant. The product configuration baseline is the configuration that is adequate for the production and acceptance of each vehicle.

In a letter dated April 23, 1993, the Contracting Officer informed the Contractor that vehicles the Army conditionally approved during first production vehicle inspection (FPVI) will become the manufacturing standards that established the baseline configuration for each FMTV variant. All subsequent vehicles presented for acceptance were to be identical to the FPVI

## Contractor's Performance

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vehicle. The Contracting Officer further stated that the Contractor must understand that the vehicles approved in FPVI represent the production baseline configuration before the start of initial production test and initial operational test and evaluation.

The contract required that the Army assume configuration control of vehicles in the FMTV Program upon acceptance of the first vehicle. However, on August 10, 1993, at the start of FPVI, the Army took over configuration control of the vehicles from the Contractor. The Army believed that the Contractor was not adequately maintaining configuration control.

The vehicles did not pass FPVI and 270 issues were identified that the Contractor had to resolve before the Army accepted the first vehicle. Further, as of January 26, 1995, no variant in the FMTV Program had passed FPVI and 20 of the original 270 FPVI issues remained open. Officials from the Army Tank-automotive and Armaments Command conducted a production review of FMTV Program in September 1994. The production review identified 6 of the 20 open issues as being key FPVI issues. The six issues dealt with the design and operational characteristics of the vehicles.

The Defense Plant Representative Office (DPRO) at the Contractor's facility conducted a Configuration Management Baseline Review in August 1994 that demonstrated the lack of configuration control. The review showed that the Contractor was unable to trace configuration changes to specific vehicles. As a result, neither the Government nor the Contractor knew the exact configuration for each individual vehicle built. Followup reviews confirmed the inability of the Contractor to describe the configurations of the vehicles adequately. As a result, each vehicle will require a complete physical inspection to determine the degree of retrofit necessary after a configuration baseline is established.

**Manufacturing Process.** The Contractor had not established a production line that was representative of a normal manufacturing process. The Contractor was unable to stabilize and demonstrate continuity of production or process control because of the lack of a product configuration baseline for the variants in the FMTV Program.

As of May 31, 1995, the Contractor had produced 1,968 vehicles in the FMTV Program, none of which were complete. All vehicles produced had either nonconforming or missing parts. The vehicles will have to be retrofitted with the proper parts. Until a product configuration baseline is established and representative vehicles are produced on the manufacturing line, the Contractor cannot achieve continuous production.

**Parts Shortage.** The Contractor had not resolved problems with shortages of parts. The Contractor had not completed the drawings due to continuous changes in design. As such, the Contractor had been unable to provide the revised drawings to vendors. The vendors need the drawings to produce the parts for production. The lack of parts forced the Contractor to stop the production line several times. For example, the Contractor was delayed in completing production of the vehicles used for initial operational test and

evaluation because of parts shortages. We are reviewing the supply status of a statistical sample of parts to determine the extent of the parts shortages. If the results are significant, we will report them in a separate report.

**Quality Control Problems.** The Contractor had not corrected deficiencies in quality assurance. The Contractor was unable to control internal and vendor quality assurance issues in the production process. Quality assurance specialists from the DPRO at the Contractor's facility and the Army Tank-automotive and Armaments Command identified numerous deficiencies in the Contractor's quality assurance program in January 1994. In May 1995, the DPRO conducted a quality process review that found the Contractor's quality control system to still be marginally acceptable. See Appendix H for a chronology of events concerning the quality assurance issues.

## Contractor Accountability

The Contracting Officers did not hold the Contractor accountable for meeting the delivery schedule and other provisions of the contract, even though the Contractor continually failed to produce vehicles according to delivery schedules, failed production qualification testing, and failed first article acceptance requirements. Neither the Procuring nor Administrative Contracting Officers (ACO) issued a cure notice informing the Contractor that the Army considered the Contractor's inability to meet the delivery schedule to be in noncompliance with the contract and establishing a realistic schedule for the Contractor to correct the condition or requesting a plan for meeting the schedule. Also, neither official requested the Contractor to show cause as to why the contract should not be terminated for default. The Army allowed the Contractor to continue producing incomplete vehicles.

## Effects of Contractor's Performance

The Contractor's inability to meet delivery schedules caused serious cost and readiness consequences for the DoD.

**Cost Consequences.** The Contractor's inability to meet the delivery schedule created substantial cost risks for the DoD. As of May 31, 1995, the Army paid the Contractor about \$316 million on the production contract and had not received a single vehicle suitable for fielding. The Army had conditionally accepted 758 vehicles. The Contractor had produced 1,210 additional vehicles; however, the Army did not accept those vehicles. The Army only accepted the vehicles that met the acceptance criteria established by the Procuring Contracting Officer. All 1,968 vehicles produced had either nonconforming or missing parts. As such, the FMTV Program needed a significant retrofit program to correct design problems and identified deficiencies. As discussed,

## Contractor's Performance

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the Contractor was responsible for making and paying for all modifications required to bring the vehicles to the approved configuration baseline. However, the Contractor had not provided the DPRO with a plan for retrofitting the vehicles.

Another cost consequence of the Contractor's delays in production was the millions of dollars the Army is spending annually to operate and maintain the fleet of aging 2-1/2 and 5-ton vehicles. The average age was 25.4 years for the 2-1/2-ton vehicles in the inventory and 13.8 years for the 5-ton vehicles, while the economic service life of the 2-1/2-ton and 5-ton vehicles were 20 years and 22 years, respectively. The Army paid an average of \$7,119 annually to operate and maintain a vehicle in its current fleet. The Army estimated that the average cost to operate and maintain a vehicle of the FMTV Program would be \$1,895. As such, the Army has unnecessarily incurred an additional \$5,224 per vehicle annually due to the Contractor's inability to deliver fieldable vehicles on a timely basis. Through June 30, 1995, the Army had incurred about \$21 million as a result of the Contractor not delivering vehicles to the Army as required by the original delivery schedule.

**Readiness Consequences.** Equally important, the production delays directly affect readiness as the Army will be forced to continue using older, less reliable vehicles.

## Options Available to the Army

The Army has opportunities to reduce the cost risks on the FMTV Program. The Army could either delay a full-rate production decision until the Contractor has resolved the discussed conditions or proceed with the Program as planned but hold the Contractor accountable for meeting the delivery schedule.

**Delaying the Full-Rate Production Decision.** Since the Contractor had not produced fieldable vehicles at the LRIP level of 200 vehicles per month, the Army could delay the full-rate production decision until the Contractor has resolved the conditions discussed above. However, deferring additional purchases could cause a break in production and could require the Army to stretch out the delivery of the vehicles remaining in the LRIP quantity. Stretching out the delivery of vehicles remaining in the LRIP quantity could increase the cost of vehicles in the FMTV Program. Officials of the DPRO estimated that stretching out the delivery of the vehicles in LRIP by 6 months would cost \$93 million.

**Reestablishing the Delivery Schedule.** Rather than delaying the full-rate production decision, a more cost-effective option would be for the Army to continue the FMTV Program as planned and make the Contractor accountable for meeting the delivery schedule. To hold the Contractor accountable, the Procuring Contracting Officer should notify the Contractor of new dates for the Contractor to complete performance and to make deliveries. If the Contractor



does not meet the new delivery schedule with fieldable vehicles, the Contracting Officer should initiate a termination for default, described in the Federal Acquisition Regulation Subpart 49.4, "Termination for Default."

## Additional Needs

The Army needed to take two additional actions on the FMTV Program: include a liquidated damages clause in the existing production contract and determine whether the Army should establish a second contractual source for medium tactical vehicles.

**Liquidated Damages Clause.** Federal Acquisition Regulation Section 52.212.4 states that the contracting officer may insert a liquidated damages clause in solicitations and contracts when a fixed-priced contracts is contemplated for supplies, services, or research and development. The clause states that:

If the contractor fails to deliver the supplies or perform the services within the time specified in the contract or any extension, the Contractor shall, in place of actual damages, pay to the Government as fixed, agreed, and liquidated, for each calendar day of delay.

In effect, the clause compensates the Government for costs that it incurs as a result of delays in contractor's performance.

The Contracting Officer did not include a liquidated damages clause in the production contract for the FMTV Program because he believed it was not needed in a firm-fixed-price contract. He also maintained that the amount of the liquidated damages would be extremely hard to determine. Further, he believed that his authority to limit progress payments was an adequate remedy for delays in the Contractor's performance.

The Contracting Officer's reasons for not placing a liquidated damages clause in the production contract were not valid. As we stated, Federal Acquisition Regulation Section 52.212.4 states that a liquidated damages clause can be used for fixed-priced contracts. Also, the amount of liquidated damages for the delays in the Contractor's performance were not hard to determine. As stated, the Army incurred an additional \$5,224 per vehicle annually due to the Contractor's inability to deliver fieldable vehicles on a timely basis. Last, progress payments are not an effective remedy for failure of the contractor to perform. The Government cannot recover costs incurred as a result of delays in contractors' performance through progress payments.

As such, the Army needs to include a liquidated damages clause in the existing and future production contracts for the FMTV Program.

**Need for a Second Source.** The Army also needs to determine whether it should establish a second contractual source for medium tactical vehicles. A second source would be needed in case the Army terminates the existing contract. A second source may also be needed even if the Army does not

## Contractor's Performance

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terminate the existing contract. A single contractor cannot produce enough vehicles to significantly reduce the average age of the Army's medium tactical vehicles. Therefore, the Army could find it lacks sufficient reliable vehicles for its operations.

We were not the first to conclude that the FMTV Program would not produce enough vehicles to reduce the age of existing medium tactical vehicles. The General Accounting Office (GAO) Report No. GAO/NSIAD-93-232 (OSD Case 9461), "Army Acquisition: Medium Truck Program Is Not Practical and Needs Reassessment," August 5, 1993, concluded that the 30-year strategy for the FMTV Program could impair the Army's ability to meet key management and program goals and expectations, such as significantly reducing the average age and the operational and support costs of medium tactical vehicles. The GAO identified seven alternatives to the FMTV Program that could provide a more cost-effective acquisition of medium tactical vehicles. See Appendix B for more information on the GAO report.

As such, the Army's Acquisition Executive needs to perform a cost-benefit analysis of establishing a second source for the FMTV.

## Recommendations, Management Comments, and Audit Response

### **1. We recommend that the Procuring Contracting Officer for the Family of Medium Tactical Vehicles:**

**a. Notify the Contractor of new dates for the Contractor to complete performance and to make deliveries.**

**b. Include a liquidated damages clause in future production contracts for FMTV.**

**c. Terminate the contract for default if the Contractor cannot meet the revised schedule and cannot show cause as to why the contract should not be terminated.**

**Management Comments.** The Director, U.S. Army Contracting Support Agency, provided comments for the Army on this report. The full text of the Army comments is in Part III. The Army concurred with Recommendations 1.a. and 1.c., stating that the Procuring Contracting Officer, Army Tank-automotive and Armaments Command, issued Modification P00042 to the contract on July 25, 1995. The modification included a new delivery schedule for the remainder of the Program. The Army stated that if the Contractor failed to meet the requirements contained in the modification, it would make appropriate business decisions. Termination for default would be an available alternative.

The Army nonconcurred with Recommendation 1.b. stating that the Army had no intention of modifying the existing production contract to incorporate a liquidated damages clause. The Army objected to putting a liquidated damages clause in the contract because adding liquidated damages provisions to the existing contract would require an agreement by the Contractor. In addition, the Contractor would be entitled to an equitable adjustment to the contract. Also, the Army maintained that a liquidated damages clause in a production contract would impact the competition and cost of the vehicles. It is also reasonable to expect the Contractor to include some or all of the costs of potential liquidated damages in the cost of the vehicles. Further, in a complex production contract, such as the FMTV, it is difficult to ascertain that a contractor is solely responsible for production problems.

Concerning future production contracts, the Army stated that it would determine the appropriateness of the clause.

**Audit Response.** Based on the Army comments, we revised Recommendation 1.b. that was in our draft report. The recommendation in the draft report provided for the Procuring Contracting Officer for the FMTV Program to include a liquidated damages clause in both existing and future production contracts for FMTV. We revised the recommendation to state that the Procuring Contracting Officer for the FMTV Program include a liquidated damages clause in future production contracts for FMTV. Although we revised the recommendation to address only future contracts, the Army should not interpret the revision as our agreement that the Contractor would increase the cost of vehicles due to the liquidated damages clause. Such action by the Contractor would be tantamount to the Contractor acknowledging in advance that it would not meet the proposed delivery schedule.

We still maintain that a liquidated damages clause was appropriate and should have been in the production contract when it was awarded. We do consider the delivery of the vehicles of the FMTV in the specified time to be vitally important in replacing the aging fleet of medium tactical vehicles and reducing the costs to support the fleet. As such, we remain convinced that the Army should include a liquidated damages clause in future contracts for the FMTV. Therefore, we ask the Procuring Contracting Officer for the FMTV Program to state his position on revised Recommendation 1.b. We consider the Army comments on Recommendations 1.a. and 1.c. to be responsive and accept the Army comments.

**2. We recommend that the Army's Acquisition Executive perform a cost-benefit analysis of establishing a second source for the Family of Medium Tactical Vehicles.**

**Management Comments.** The Director, U.S. Army Contracting Support Agency, did not specify concurrence or nonconcurrence with Recommendation 2. However, the Director provided comments indicating that he disagreed with the recommendation. Those comments are discussed below.

The Army has analyzed the cost of developing a second source at various times during the course of this program. The result has always been the same - sufficient funding is not available to develop a second

## Contractor's Performance

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source. Most recently, in preparation for the Army System Acquisition Council (ASARC) for the full rate production decision, it was again confirmed that sufficient funding is not available to develop a second source.

Future production requirements are intended to be acquired through full and open competition utilizing technical data acquired during Phase II [Production Phase]. Abandonment of this strategy at this time to development a second source would jeopardize the accomplishment of the efforts and funds expended to date to accomplish the production and delivery of acceptable vehicles. In addition, a competitive data package, sufficient to permit the competition of the FMTV program and/or the development of a second source, will not be available until June, 1997.

**Audit Response.** The Director's comments to Recommendation 2. were not fully responsive. The comments imply that a second source would be cost beneficial, but the Army lacks sufficient upfront funding. We request clarification. Also, the Director did not address how a single contractor can produce enough vehicles to significantly reduce the average age of the Army's medium tactical vehicles. We ask that the Army Acquisition Executive provide additional comments in response to the final report.

## Other Management Comments and Audit Response to the Comments

The Army took exception with various facts presented in the draft report. Specifics on the Army comments and our responses to the comments are in Appendix I.

## **Part II - Additional Information**

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## Appendix A. Scope and Methodology

### Scope

We reviewed contract number DAAE07-91-C-R001, valued at \$1.2 billion, and supporting documentation, dated from June 1987 through July 1995. In doing so, we evaluated test schedules and results, performance and quantitative requirements of the FMTV and its mission, system concepts, studies of alternatives, contractual actions, budget and cost estimates, and management control assessments relating to the FMTV Program. We concentrated on events critical to a major acquisition program that was in the early production and deployment phase of the major acquisition process.

### Methodology

**Use of Computer-Processed Data.** We did not rely on computer-generated data to develop our audit conclusions.

**Audit Period, Standards, and Locations.** We performed this economy and efficiency and program audit from October 1994 through July 1995. The audit was made in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. We included such tests of management controls as were deemed necessary. Appendix K lists the organizations that we visited or contacted during the audit.

### Management Control Program

DoD Directive 5010.38, "Internal Management Control Program," April 14, 1987, requires DoD organizations to implement a comprehensive system of management controls that provides reasonable assurance that programs are operated as intended and to evaluate the adequacy of the controls.

**Scope of Review of Management Control Program.** We performed a two-part review of management controls. On October 18, 1994, the Inspector General, DoD, announced an audit of the "Implementation of the DoD Internal Management Control Program for Major Defense Acquisition Programs," Project No. 5AE-0009. The objective of the audit is to evaluate the effectiveness of the management control program the Defense Acquisition

Executive and the Service Acquisition Executives use for major Defense acquisition programs. The audit will assess the process for recognition and correction of material control weaknesses.

In this audit of the FMTV Program, we evaluated management controls over the program management process. In assessing the management controls, we reviewed the vulnerability assessments of the Program Executive Officer for Tactical Wheeled Vehicles and the Program Manager for the FMTV to determine the levels of risk that their responsible officials assigned to their organizations' functional responsibilities. We also reviewed the last annual certifications by the Program Executive Officer and the Program Manager to determine whether they reported to their superiors material weaknesses related to the acquisition management of the FMTV Program.

**Adequacy of Management Controls.** We identified a material control weakness as defined by DoD Directive 5010.38. The Army did not have the control to hold the Contractor accountable for delivery schedules and other contractual provisions. The weakness existed because management did not follow procedures specified in the Federal Acquisition Regulation. Recommendations in Finding A will correct the weakness. If implemented, the Army will be able to reduce risk in the FMTV Program. We will provide a copy of the report to the senior Army official responsible for management controls.

**Adequacy of the Army's Self-Evaluation.** The vulnerability assessments showed that the officials assigned low risk to each functional area that they assessed. They did not report any deficiencies related to the acquisition management of the FMTV Program. In view of the Contractor's performance problems, the risk was understated.

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## **Appendix B. Summary of Prior Audits and Other Reviews**

During the last 5 years, the GAO issued three reports that specifically addressed the FMTV Program. Also, the Inspector General, DoD, issued a report on low-rate initial production in major Defense acquisition programs and a quick-reaction report on conditional acceptance of medium tactical vehicles.

### **General Accounting Office**

GAO Report No. GAO/NSIAD-95-77R (OSD Case 9839), "FMTV Low Rate Initial Production," December 21, 1994, stated that the Army was planning to modify its FMTV contract to increase the number of vehicles authorized for LRIP from 3,085 to 3,858 vehicles, an increase of 773 vehicles. The Army stated that the increase would prevent a break in production. The GAO concluded that the contract should not be modified because testing of the FMTV had not demonstrated that it was operationally suitable and that the current contract authorized enough vehicles under LRIP to maintain production until scheduled testing can be completed.

The GAO recommended that the Assistant Secretary of the Army (Research, Development and Acquisition) direct the FMTV Program Manager to cancel plans to modify the contract and delay the planned increase of 773 vehicles until the system successfully completes operational testing.

The Army partially concurred with the GAO recommendation. The Army agreed that significant successful test experience should be accumulated before increasing the number of vehicles under LRIP. However, the Army believed that limiting that experience to completion of operational testing was not necessary and possibly not contractually feasible. At the time of our audit, the Army was still considering whether the test results justified increasing the number of vehicles ordered under LRIP.

GAO Report No. GAO/NSIAD-94-240, (OSD Case 9571), "Army Acquisition: Commercial Components Used Extensively in Tactical Trucks," was issued September 26, 1994. The audit was performed at the request of the Ranking Minority Member of the Committee of Governmental Affairs, U.S. Senate. The objectives of the audit were to determine whether the Army could meet its tactical vehicle requirements through purchasing purely commercial or "off-the-shelf items," whether "off-the-shelf" procurement was feasible or what modifications were needed, and whether the Army requirements limited the use of commercial trucks. The GAO concluded that key operational requirements prevented the Army from using strictly commercial items to meet its tactical vehicle needs. However, the GAO found that contractors used commercial trucks as baselines for their systems and generally used commercial manufacturing practices and components to produce tactical trucks. The GAO



## Appendix B. Summary of Prior Audits and Other Reviews

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also concluded that the Army's policies placed higher demands on contractors by requiring rigorous testing, more detailed technical manuals, and the use of standard Army parts. The GAO did not make recommendations.

GAO Report No. GAO/NSIAD-93-232 (OSD Case 9461), "Army Acquisition: Medium Truck Program Is Not Practical and Needs Reassessment," was issued August 5, 1993. The objectives of the audit were to determine the feasibility of the Army meeting program and fleet management goals under its 30-year acquisition strategy, the extent to which the Army considered other medium vehicle alternatives in deciding to move forward with the vehicle replacement program, and whether more cost-effective alternatives exist now.

The GAO concluded that the Army's 30-year strategy could impair the Army's ability to meet key management and program goals and expectations, such as significantly reducing the average age of the fleet and lowering the fleet's operation and support costs. The GAO also identified several alternatives to the current program that could provide a more cost-effective medium tactical vehicle acquisition.

The GAO recommended that the Secretary of the Army reassess the cost effectiveness of the 30-year acquisition strategy for the Army's FMTV Program, especially in light of the negative impact of program length on program and fleet management goals and expectations. The GAO added that the assessment, at a minimum, should consider the:

- o DoD final unannounced force structure reductions,
- o impact of the Army's new operational doctrine on requirements,
- o air deployability of the 2-1/2-ton vehicle in the FMTV Program, and
- o need for more trailers in the FMTV Program.

The GAO also recommended that the Army not proceed to full-rate production on the FMTV Program until the reassessment was complete and alternatives were considered.

The Army generally disagreed with the GAO conclusions and recommendations; the Under Secretary of Defense for Acquisition and Technology nonconcurred with delaying the FMTV Program from proceeding to full-rate production. The Under Secretary believed that completing the assessment to support the solicitation for the follow-on production contract was more prudent. Also, the Under Secretary stated that the Army would update the cost and operational effectiveness assessment for the FMTV Program. The Under Secretary further stated that the update would be used to support the Army System Acquisition Review Milestone IIIB review to decide whether the FMTV Program should proceed to full-rate production. Further, following the Milestone IIIB review, the Army Training and Doctrine Command would perform a program assessment of the cost-effectiveness of a 30-year procurement program. That assessment would be completed by FY 1996, before the award of the second multi-year production contract.

### Inspector General, DoD

Inspector General, DoD, Report No. 96-005, "Quick-Reaction Audit Report on Conditional Acceptance of Medium Tactical Vehicles," October 12, 1995, stated that the FMTV Program Office had conditionally accepted 552 incomplete vehicles from the Contractor and planned to conditionally accept additional vehicles. The report concluded that the conditional acceptance of the vehicles was not in the best interest of the Government. As a result, the Army prematurely paid the Contractor an additional \$7.1 million for which the Army received no benefit. Further, the continued conditional acceptance of incomplete vehicles could result in the Army paying the Contractor an additional \$17.0 million for incomplete vehicles. Also, conditional acceptance increased the Army's cost risk on the FMTV Program and reduced the incentive for the Contractor to finish incomplete vehicles. The report recommended that the Army stop conditionally accepting vehicles under the FMTV Program.

The Director for Combat Service Support (the Director), Office of the Assistant Secretary of the Army (Research, Development and Acquisition), nonconcurred with the recommendation. The Director stated that most concerns outlined in the draft report had been recently overcome since all testing had been completed. The Director also stated that the Army had not incurred any additional costs as a result of conditionally accepting vehicles.

The Program Executive Officer for Tactical Wheeled Vehicles questioned the quantity of vehicles that the draft report cited as being inappropriately accepted. The Program Executive Officer also did not agree with the recommendation because conditional acceptance was needed to maintain the production build line, to improve the production processes, and to improve the supplier-based deliveries of components and assemblies to the levels necessary to support full-rate production. The Inspector General, DoD, remained convinced that, except for vehicles used for testing, the Program Executive Officer specified no reasons that made conditional acceptance imperative. The Inspector General, DoD, also believed that the Army realized no benefit in conditionally accepting the vehicles. Therefore, the Inspector General, DoD, asked the Program Executive Officer to reconsider his position on the recommendation and provide additional comments to this report.

Inspector General, DoD, Report No. 94-014, "Low-Rate Initial Production in Major Defense Acquisition Programs," November 9, 1993, stated that all seven of the major Defense acquisition programs reviewed entered LRIP without completing at least some prerequisites in design, testing, and preparation for production. The report also stated that LRIP acquisition strategies did not effectively limit production quantities before Milestone III, Production Approval.

The report recommended that the Under Secretary of Defense for Acquisition (now Under Secretary of Defense for Acquisition and Technology) revise acquisition regulations and military standards to provide additional internal controls for assessing the readiness of programs to enter LRIP, including a

## **Appendix B. Summary of Prior Audits and Other Reviews**

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required milestone review before entry into LRIP, and to limit the number of LRIP units produced to the minimum quantity necessary to support initial operational test and evaluation and production base considerations.

The Director, Acquisition Program Integration, Office of the Under Secretary of Defense for Acquisition and Technology, was generally supportive of the findings and recommendations. The Inspector General, DoD, determined that the need for mediation and followup on unresolved recommendations would not be known until the DoD 5000 documents are rewritten, scheduled for January 1996.

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## **Appendix C. Funding for the Family of Medium Tactical Vehicles Program**

The Army had not fully funded the FMTV Program. Specifically, the Army had not funded Production Year 5 of the contract. As a result, the Army's medium tactical vehicle fleet will have an even higher average vehicle age and increasing operation and maintenance costs.

### **Funding Policy and Affordability**

DoD Instruction 5000.2, Part 4, Section D, requires that affordability be assessed at each milestone decision point and that a program shall not be approved to enter the next acquisition phase unless sufficient resources are or will be programmed to support project development, testing, production, fielding, and support requirements.

The affordability of the FMTV Program has been an issue since 1991. The Army Systems Acquisition Review Council (the Council) met in May and June 1991 to review the FMTV Program for entry into LRIP. The Council had concerns at that time about program stability, program budget cuts, and underestimation of unit costs. After reviewing those concerns, the Council approved FMTV for LRIP.

### **Funding Profile**

In preparing its Program Objective Memorandum for FYs 1996 through 2001, the Army faced a serious affordability crisis in its ability to fund the systems it wanted. The Office of the Secretary of Defense reduced the Army's proposed FY 1995 budget request of \$61.1 billion by \$4.2 billion. The Army considered the \$61.1 billion requested to be the minimum funds necessary to maintain readiness and sustainment, while supporting acceptable investment and recapitalization efforts.

Before the reductions, the Army planned to spend \$1.3 billion to procure 16,448 vehicles of the FMTV Program during FYs 1996 through 2001. After the reductions, the Army significantly reduced the funding for the FMTV in FYs 1996 and 1997. The table shows the amount of funding that the Army would require to fully fund the FMTV Program for FYs 1996 through 2001 and the planned funding in the Army's Program Objective Memorandum. The Army did not add additional funding for the FMTV in the Program Objective Memorandum for FYs 1997 through 2001, dated June 19, 1995.

## Appendix C. Funding for the Family of Medium Tactical Vehicles Program

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### Full Funding Requirements and Budget Request for FMTV

<u>Fiscal Year</u>	<u>Full Funding Requirements (millions)</u>	<u>Budget Request Amount (millions)</u>
1996	\$343.0	\$39.7
1997	200.0	0.0
1998	400.0	14.3
1999	250.0	154.2
2000	100.0	301.1
2001	30.0	365.6

On January 25, 1995, a program analyst from the Program Analysis and Evaluation Directorate, Director of the Army Staff, stated that the proposed budget reduction would result in the termination of the multi-year contract for FMTV. He further stated that the budget request of \$39.7 million in FY 1996 funding would be used for contract termination charges. The program analyst estimated that the termination liability would be \$40 million, although the termination costs could be as high as \$150 million. Also, the program analyst estimated that restarting production of the FMTV Program could cost the Army about \$120 million. As of December 20, 1994, the Contractor estimated that the cost to terminate the contract would be about \$109 million.

### Program Status

Despite the budget reduction, the Army planned to continue production of the vehicles in the FMTV Program and to move the program into full-rate production. The Army planned a highly optimistic schedule that included passing the initial production test and initial operational test and evaluation and obtaining full-rate production approval by the end of August 1995. The Army cannot provide the Contractor with funds for full-rate production until the Council approves full-rate production.

### Reason for Continued Production

At the time of our review, the Army did not plan on terminating the contract. When asked about the impact of the budget reductions for FYs 1996 and 1997, an official of the FMTV Program Office stated that the program was continuing and that the budget reduction would only impact Production Year 5 of the contract. The Army hoped that funding will become available to continue the FMTV Program.

### **Effect of Funding Cuts**

As a result of the funding cuts, the Army's medium vehicle fleet will have an even higher average vehicle age and, as discussed in the Finding, the Army would continue to incur the higher operation and maintenance costs of the older vehicles. If funding is not available for the quantities of vehicles in Program Year 5, the Army would receive only 7,372 vehicles of the 10,843 vehicles on the first multi-year contract. Further, funding for the second multi-year contract would not be available until FY 1999, an additional delay of 3 years.

### **Actions Planned by Management**

The Deputy Secretary of Defense directed that the Director, Program Analysis and Evaluation, determine the adequacy of funding for the FMTV Program as part of the FYs 1997-2001 Program Review. Therefore, we are not making a recommendation concerning the funding of the FMTV Program.

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## Appendix D. Examples of Missing and Nonconforming Parts

As of April 30, 1995, the Contractor had produced 1,797 vehicles. All 1,797 vehicles had missing and nonconforming parts. As examples, vehicle number 333 had the following missing and nonconforming parts. This missing and nonconforming parts list is typical of the other 1,796 vehicles; however, some are missing more and some are missing fewer parts.

<u>Part Name</u>	<u>Part Number</u>
Power Relay Harness	12420399
Transducer	12414330-001
Tube Assembly	12420362
Transmission-oil Dipstick	12414700RB
Shroud, Fan Radiator Top	12420170RD
Shroud, Fan Radiator Bottom	12420171RB
Surge Tank	12418232
Cap	12419131RA
Surge Tank	12420451
Cap	12420453
Chip Retaining	12418205
Grille, Radiator	12418315-001RC
7" Classic Logo	99019
Coolant Fill	No Part Number
Spacer	12420467
Bracket	12420468
Hex Cap Screw	12414475-087
Nut Hex Jam	MS35691-53
Bolt With Hex Flange	12414307-044
Heater	12414486RC

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## Appendix E. Prior Test Results

The Army conducted an initial production test and an initial operational test and evaluation of vehicles in the FMTV Program. However, the vehicles did not pass either test.

**Initial Production Test.** From June 1993 through November 1994, the Commander, Test and Evaluation Command, conducted initial production testing. The FMTV Program failed the test primarily due to the inability of the vehicles to meet the reliability requirements.

**Initial Operational Test and Evaluation.** From October through December 1993, the Commander, Operational and Technical Evaluation Command, conducted an initial operational test and evaluation of vehicles from the FMTV Program. Due to the poor performance of the vehicles, the test was stopped. Officials of the Operational and Technical Evaluation Command concluded that the vehicles were not ready for initial operational test and evaluation.

**Other Tests.** In June 1994, the Commander, Operational and Technical Evaluation Command, conducted a limited user test of vehicles from the FMTV Program as an entrance criteria for additional initial operational test and evaluation. Officials from the Operational and Technical Evaluation Command concluded that the vehicles were still not ready for initial operational test and evaluation.

In July 1994, the Commander, Operational and Technical Evaluation Command, conducted a second limited user test of six variants of the vehicles. At the conclusion of the test, officials of the Operational and Technical Evaluation Command determined that the light medium tactical cargo vehicle and the medium tactical cargo vehicle variants were ready for initial operational test and evaluation. The other four variants would undergo another limited user test in which the vehicles would continue to be tested and fixed. The Commander, Operational and Technical Evaluation Command, scheduled the third limited user test, as well as the second initial operational test and evaluation, for August and September 1994. The Army stopped the test before completion because test personnel deployed to Haiti.



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## **Appendix F. Production Representativeness of Test Vehicles**

The vehicles used for initial production testing were not representative of the vehicles being produced. The Contractor proposed that 105 modifications be allowed on the vehicles used for initial production testing and 63 modifications on vehicles used in the initial operational test and evaluation. If the vehicles performed satisfactorily with the modifications, the Contractor would submit engineering change requests for the modifications to become permanent design changes.

In an October 1994 letter to the Contractor, the Contracting Officer stressed the importance of installing the modifications on the production line by stating, "The Government desires that the test fixes be installed on the assembly line, or as they would be on the assembly line, in order for the vehicles to be representative of the production configuration to be fielded."

The Contractor did not install the majority of the modifications on the production line. The Contractor installed 71 of the 105 modifications required after the vehicles for initial production testing came off the production line. Similarly, the Contractor installed 33 of the 63 modifications after the vehicles for initial operational test and evaluation came off the production line.

Also, the Contractor performed special testing and special preparation to the vehicles used in initial production testing and initial operational test and evaluation. Under normal acceptance procedures, the Contractor would drive the vehicle 12 miles on a flat track at the Contractor's facility. Officials of the DPRO would drive the vehicle an additional 12 miles on the same track. For the test vehicles, the Contractor drove the vehicles between 600 and 1,000 miles on special test courses over 2 weeks to detect defects and weaknesses. Representatives from the subcontractors who manufactured the engine and transmission performed intensive maintenance and final preparation of the vehicles.

We were unable to verify that the configuration of the vehicles used for the initial production testing was the same as the vehicles used for the initial operational test and evaluation. For initial production testing, the Army selected vehicles produced in lots from Production Years 2 and 3. For initial operational test and evaluation, the Army selected vehicles produced in Production Year 3. The Contractor continually changed the design as vehicles were being built. The Contractor was required to incorporate any changes so that the configurations of the variants used for initial production testing and for operational test and evaluation were identical. Although officials of both the DPRO and the Contractor claimed that the configurations of the test variants were identical, neither was able to provide as-tested configurations of the vehicles selected for both types of tests.

If the Army wanted to conduct concurrent initial production testing and initial operational test and evaluation, the Army needed to ensure that both tests used

## **Appendix F. Production Representativeness of Test Vehicles**

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identical configurations. Otherwise, the test results would not be fully useful because the Army would be faced with two different configuration baselines. According to DPRO officials, if the current initial production testing and initial operational test and evaluation test vehicles configurations are different, a combination of the two configurations would become the baseline vehicle. However, this "hybrid" configuration would then be a configuration that was not tested in either initial production testing or initial operational test and evaluation.

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## Appendix G. Design Changes

The Contractor continued to make design changes, as evidenced by the volumes of test incident reports, failure analysis and corrective action reports, engineering change requests, and notices of revisions to engineering drawings.

**Test Incident Reports.** As of July 3, 1995, the Army had issued 7,500 test incident reports that required corrective actions for vehicles in the FMTV Program. The test incidents were problems identified during the prior and ongoing initial production testing and initial operational test and evaluation. Since initial production testing and initial operational test and evaluation were being redone, the Contractor wanted to review the prior test incident reports for deletion and start corrective action only on new test incident reports generated. As of July 3, 1995, the Army had not decided whether the prior test incident reports should be deleted. The Army considered 2,025 of the 7,500 test incidents to be critical or major test incidents. Table E-1 summarizes the test incident reports.

**Table E-1. Summary of Test Incident Reports**

<u>Type</u>	<u>Number</u>
Critical	79
Major	1,946
Minor	<u>5,475</u>
Total	<b>7,500</b>

The DPRO used Military Standard 105D to define critical, major, and minor test incidents. Test incidents were considered:

- o critical if the incident made suspension or termination of the test advisable;

- o major if the vehicle was unable to meet critical or essential functional areas, design, or performance requirements; and

- o minor if the incident was a malfunction, defect, hazard, or negative finding that did not qualify as a critical or major test incident.

**Failure Analysis and Corrective Action Reports.** As of July 3, 1995, the Contractor had closed failure analysis and corrective action reports for 4,657 of the 7,500 test incident reports. Therefore, actions were open for 2,843 or 38 percent of the test incident reports.

**Engineering Change Requests.** As of July 3, 1995, the Contractor generated 5,178 engineering change requests for vehicles in the FMTV Program. The Contractor still must generate additional engineering change requests for outstanding and future test incident reports. This massive engineering change

## Appendix G. Design Changes

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activity involved redesign and drawing work, which impacted the material acquisition process, new production implementation point, and the identification of retrofit requirements.

Table E-2 shows the status of the engineering change requests that the Contractor had generated, as of July 3, 1995.

**Table E-2. Status of Engineering Change Requests**

<u>Status</u>	<u>Class I</u> <sup>1</sup>	<u>Class II</u> <sup>2</sup>	<u>Total</u>
Open	174	110	284
Closed	<u>1,360</u>	<u>3,239</u>	<u>4,599</u>
Total	<b>1,534</b>	<b>3,349</b>	<b>4,883</b>

<sup>1</sup>Class I engineering change requests are changes that, if approved, would affect the configuration item's performance, reliability, interface characteristics, logistics supportability, or other aspect of form, fit, or function.

<sup>2</sup>Class II engineering change requests are changes that, if approved, would not affect the form, fit, or function of the item and that do not affect interchangeability of configuration items.

**Notices of Revisions to Engineering Drawings.** The Contractor issues notices of revision to the Army to incorporate engineering change proposals into the engineering drawings. As of July 3, 1995, the Contractor had issued 250 notices of revisions for changes that have not been incorporated into the drawings. Incorporating the engineering change proposals into engineering drawings delayed completion of level III drawings. The level III drawings, as well as specifications for the vehicles, are main components of the technical data packages for vehicles in the FMTV Program. The technical data packages are the sets of data that identify the vehicles to be built and delivered. As of July 3, 1995, only 2 of 93 technical data packages had been submitted to the Army for approval. The Army had approved the eight technical data packages submitted.

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## Appendix H. Quality Assurance

During January 1994, quality assurance specialists from the DPRO at the Contractor's facility and the Army Tank-automotive and Armaments Command conducted a Quality Readiness Review of the Contractor's MIL-Q-9858A Quality Program. The review identified numerous deficiencies in the Contractor's quality assurance program. The review found that the Contractor did not:

- o have a quality control procedure that promptly detected and corrected assignable conditions;
- o identify nonconforming parts and supplies to prevent unauthorized use and commingling with conforming supplies;
- o extend corrective actions to vendor's products in all cases; and when the vendor implemented corrective action, the Contractor did not review, document, or monitor the corrective action; and
- o inspect vendor supplies and material to the extent necessary upon receipt.

The Contractor attempted to correct the deficiencies. In February 1994, the Contractor voluntarily suspended production to work on the quality assurance problems.

In April 1994, the officials of the DPRO assessed the Contractor's compliance with MIL-Q-9858A and issued a conditional letter of acceptability on April 11, 1994. The conditional letter of acceptability was based on the progress that the Contractor had made in correcting the identified deficiencies. The DPRO granted the conditional approval so that the Contractor could continue to produce vehicles and receive progress payments. However, the DPRO determination of acceptability was contingent on the Contractor completing corrections of the deficiencies.

On December 23, 1994, the ACO at the DPRO issued a memorandum to the Contractor stating that the Contractor had not implemented or maintained the quality initiatives needed to correct the deficiencies. The memorandum explained that the DPRO might withdraw the adequacy determination of the Contractor's quality control program. To preclude such action, the Contractor must correct known deficiencies and conduct a comprehensive quality program review. As a result of this memorandum, the ACO met with Contractor representatives on a weekly basis to resolve outstanding quality issues.

Also, as a result of the ACO December 23, 1994, memorandum, the Contractor's internal auditors conducted an audit of the Contractor's compliance with MIL-Q-9858A, "Quality Program Requirements." The internal auditors concluded that the Contractor complied with MIL-Q-9858A requirements in many cases. However, the Contractor was also noncompliant in some areas. For example, the Contractor did not comply with the standards of MIL-Q-

## Appendix H. Quality Assurance

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9858A in the areas of corrective actions and work instructions and had not fully implemented procedures for handling nonconforming material. The internal auditors also determined that although the Contractor's quality control program technically complied with other program requirements of MIL-Q-9858A, significant improvements were needed. The Contractor's auditors concluded that:

In order to develop and maintain a quality program consistent with the intent and goals of MIL-Q [Military Specification MIL-Q-9858A, Quality Program Requirements], the TVS [Tactical Vehicle Systems] project must give a major effort in the Procedure/Work Instruction area. Core processes should be identified and procedures/work instructions developed which focus on effectiveness, efficiency, workability, and simplicity.

The Contractor's auditors believed that the sheer number of procedures and work instructions overburdened the system and, to some extent, impeded satisfactory compliance with MIL-Q-9858A. The auditors concluded that the lack of timely and effective corrective actions indicated that management must provide support for the quality program and must ensure accountability for procedure and work instruction compliance.

On February 6, 1995, the ACO issued a memorandum to the Contractor that reiterated the DPRO position.

In my 23 Dec. 94 letter, I requested that the deficiencies outlined be corrected. I further asked that corrective actions be properly *demonstrated* to our satisfaction since written plans alone do not constitute resolution. I want to emphasize that corrective action must be demonstrated before I will consider a given deficiency rectified.

The Contractor responded to the ACO in a March 1, 1995, memorandum that stated that the issues the ACO raised represented normal follow-on activity and did not represent either an uncooperative spirit on the part of the Contractor or an out-of-control quality system.

The DPRO conducted a quality process review from May 1 through 9, 1995. The purpose of the review was to determine whether the Contractor was in compliance with the requirements of MIL-Q-9858A and, therefore, entitled to continued acceptability of the Contractor's quality control system. The review found the Contractor's quality control system still to be marginally acceptable.

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## Appendix I. Army Comments on Finding and Audit Responses

The Army took exception with various facts presented in the draft report. Specific Army comments and our audit responses follow. The full text of Army comments is in Part III.

**Army Comments.** The Army stated that the report was misleading and implied that the Contracting Officer did nothing concerning the Contractor's performance. The Army stated the Contracting Officer monitored the Contractor's performance and determined that:

1. The Contractor would probably complete the Program successfully if given additional time to correct test deficiencies.
2. The Army had limited alternatives for procuring new medium tactical vehicles.
3. The Army would incur significant costs to terminate this contract, start another procurement, and experience further delay in receiving acceptable vehicles.
4. The Contractor alleged that the Government was substantially responsible for its delays and requested compensation totaling about \$49 million.

Accordingly, the Contracting Officer concluded it was not in the Government's best interest to issue a show cause letter. He also determined it was in the Government's best interest to establish revised delivery schedules. As a result, he issued Modification P00013 on August 31, 1993, and Modification P00042 on July 25, 1995.

**Audit Responses.** We did not imply that nothing was done concerning the Contractor's performance, but we questioned the effectiveness of those actions. Our responses to the Army comments follow.

1. Our audit did not identify indicators that the Contractor would successfully complete the Program if given additional time to correct test deficiencies. The Army awarded the production contract October 11, 1991, and, as explained on page 9 of the report, the Contractor had not delivered a single vehicle that was suitable for fielding as of May 31, 1995. The Contracting Officer did not take any action, including revising the delivery schedule, until the Contractor had fallen far behind the delivery schedule. As stated in the report on page 5, the Contractor had delivered only 163 incomplete vehicles of the 1,247 vehicles that were originally required for delivery through August 1993 when the Contracting Officer issued Modification P00013 to revise the delivery schedule. Further, the Contractor had delivered only 2,368 incomplete vehicles of the 4,722 vehicles that Modification P00013 required for delivery through July 1995 when the Contracting Officer issued Modification

## Appendix I. Army Comments on Finding and Audit Responses

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P00042. Based on the Contractor's past performance, we are not confident that the Contractor will be able to meet the requirements of Modification P00042. For example, the Modification states that the Contractor will retrofit about 2,540 vehicles during the 4 months from November 1995 through February 1996. As part of the retrofit effort, the Contractor must disassemble down to the chassis and rebuild 1,456 vehicles.

2. The Army may be correct in stating alternatives are limited for procuring new medium tactical vehicles in the near term. However, two other companies did submit proposals and provided vehicles during the prototype phase of the acquisition. The GAO Report No. GAO/NSIAD-93-232 (OSD Case 9461), "Army Acquisition: Medium Truck Program Is Not Practical and Needs Reassessment," August 5, 1993, also identified several alternatives to the current program that it determined could provide a more cost-effective medium tactical vehicle acquisition.

3. We also agree that termination costs could be substantial, but, under termination for default, the Contractor would be responsible for the Army reprocurement. As for a termination delaying the delivery of vehicles, as discussed above, the Contractor had not yet delivered a complete vehicle although the original delivery schedule required the Contractor to start delivering completed vehicles in January 1993.

4. The Army is correct in stating that the Contractor requested compensation totaling about \$49 million. However, the Procuring Contracting Officer evaluated the request and determined that the request for equitable adjustment had no merit. As such, the Army had not set aside funds as a contingency for the amount of the requests.



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## **Appendix J. Summary of Potential Benefits Resulting From Audit**

<b>Recommendation Reference</b>	<b>Description of Benefit</b>	<b>Amount and/or Type of Benefit</b>
1.a.	Program Results. Establishes a reasonable delivery schedule for Contractor's performance.	Nonmonetary.
1.b.	Program Results. Allows the Army to recover costs incurred as a result of delays in Contractor's performance.	Nonmonetary.
1.c.	Program Results and Management Control. Holds the Contractor accountable for meeting the contractual delivery schedule.	Nonmonetary.
2.	Program Results. Gives the Army opportunity to reduce the average age of vehicles.	Nonmonetary.

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## **Appendix K. Organizations Visited or Contacted**

### **Office of the Secretary of Defense**

Office of the Under Secretary of Defense for Acquisition and Technology, Washington, DC

Director, Operational Test and Evaluation, Washington, DC

### **Department of the Army**

Office of the Assistant Secretary of the Army (Research, Development and Acquisition), Washington, DC

Office of the Assistant Secretary of the Army (Program Analysis and Evaluation), Washington, DC

Office of the Deputy Chief of Staff for Operations and Plans, Washington, DC

Army Operational Test and Evaluation Command, Alexandria, VA

Tank-automotive and Armaments Command, Warren, MI

Tactical Wheeled Vehicles Requirements Management Office, Fort Eustis, VA

Office of the Program Executive Officer for Tactical Wheeled Vehicles, Warren, MI

Office of the Project Manager for the Family of Medium Tactical Vehicles, Warren, MI

Army Materiel Systems Analysis Agency, Aberdeen Proving Ground, MD

Army Cost and Economic Analysis Center, Falls Church, VA

### **Defense Agencies**

Defense Contract Audit Agency, Houston Branch, Houston, TX

Defense Plant Representative Office, Stewart and Stevenson Services, Incorporated, Sealy, TX

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## **Appendix L. Report Distribution**

### **Office of the Secretary of Defense**

Under Secretary of Defense for Acquisition and Technology  
Director, Defense Logistics Studies Information Exchange  
Under Secretary of Defense (Comptroller)  
Deputy Chief Financial Officer  
Deputy Comptroller (Program/Budget)  
Director, Operational Test and Evaluation  
Assistant to the Secretary of Defense (Public Affairs)

### **Department of the Army**

Vice Chief of Staff of the Army  
Assistant Secretary of the Army (Research, Development and Acquisition)  
Deputy Under Secretary of the Army (Operations Research)  
Assistant Secretary of the Army (Financial Management and Comptroller)  
Assistant Secretary of the Army (Installations, Logistics, and Environment)  
Assistant Secretary of the Army (Manpower and Reserve Affairs)  
Commanding General, Army Materiel Command  
Commanding General, Army Tank-automotive and Armaments Command  
Commanding General, Operational Test and Evaluation Command  
Commanding General, Training and Doctrine Command  
General Counsel  
Director, Information Systems for Command, Control, Communications, and Computers  
Deputy Chief of Staff for Logistics  
Deputy Chief of Staff for Operations and Plans  
Deputy Chief of Staff for Personnel  
Deputy Chief of Staff for Intelligence  
Chief, Army Reserve  
Chief, National Guard Bureau  
Chief, Legislative Liaison  
Director, Assessment and Evaluation  
Auditor General, Department of the Army  
Program Executive Officer for Tactical Wheeled Vehicles  
Program Manager for the Family of Medium Tactical Vehicles Program

### **Department of the Navy**

Auditor General, Department of the Navy

## **Appendix L. Report Distribution**

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### **Department of the Air Force**

Assistant Secretary of the Air Force (Financial Management and Comptroller)  
Auditor General, Department of the Air Force

### **Other Defense Organizations**

Director, Defense Contract Audit Agency  
Chief, Houston Branch Office, Defense Contract Audit Agency  
Director, Defense Logistics Agency  
Chief, Defense Plant Representative Office, Stewart and Stevenson Services,  
Incorporated  
Director, National Security Agency  
Inspector General, National Security Agency

### **Non-Defense Federal Organizations**

Office of Management and Budget  
Technical Information Center, National Security and International Affairs Division,  
U.S. General Accounting Office

Chairman and ranking minority member of each of the following congressional  
committees and subcommittees:

Senate Committee on Appropriations  
Senate Subcommittee on Defense, Committee on Appropriations  
Senate Committee on Armed Services  
Senate Committee on Governmental Affairs  
House Committee on Appropriations  
House Subcommittee on National Security, Committee on Appropriations  
House Committee on Government Reform and Oversight  
House Committee on National Security, International Affairs, and Criminal Justice,  
Committee on Government Reform and Oversight  
House Committee on National Security

## **Part III - Management Comments**

# Army Comments



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
US ARMY CONTRACTING SUPPORT AGENCY  
5109 LEESBURG PIKE SUITE 916  
FALLS CHURCH VA 22041-3201



SFAE-CSA-CO

11 OCT 1995

MEMORANDUM FOR INSPECTOR GENERAL, DEPARTMENT OF DEFENSE  
ATTN: AUDITING, 400 ARMY NAVY DRIVE,  
ARLINGTON, VIRGINIA 22202

SUBJECT: Audit Report on the Contractor's Performance  
on the Family of Medium Tactical Vehicles  
Program (Project No. 5AL-0003.02)

Reference your memorandum of July 28, 1995, subject as above. Enclosed herewith are the U.S. Army Tank-Automotive and Armaments Command (TACOM) comments addressing Recommendations for Corrective Action 1.a., 1.b., and 1.c. The comments indicate concurrence with Recommendations 1.a. and 1.c., nonconcurrence with Recommendation 1.b., and take exception with various facts presented in the draft report. These are considered to be, and are endorsed as, the Army position with regard to the Recommendations.

The following addresses Recommendation 2., that the Army's Acquisition Executive perform a cost benefit analysis of establishing a second source for the FMTV. The Army has analyzed the cost of developing a second source at various times during the course of this program. The result has always been the same - sufficient funding is not available to develop a second source. Most recently, in preparation for the Army System Acquisition Review Council (ASARC) for the full rate production decision, it was again confirmed that sufficient funding is not available to develop a second source. The acquisition strategy for the FMTV program is based upon a Nondevelopmental Item (NDI) approach to fulfilling the requirement. During Phase I of the program, three contractors delivered prototype hardware and data for

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Government evaluation and testing as the result of a negotiated, competitive procurement. Phase II of the program, which was limited to the Phase I contractors, was solicited under negotiated, competitive source selection procedures and resulted in the award of a multiyear contract for the initial test and production of the vehicles. Future production requirements are intended to be acquired through full and open competition utilizing technical data acquired during Phase II. Abandonment of this strategy at this time to develop a second source would jeopardize the accomplishment of the efforts and funds expended to date to accomplish the production and delivery of acceptable vehicles. In addition, a competitive data package, sufficient to permit the competition of the FMTV program and/or the development of a second source, will not be available until June, 1997.

Point of contact for this action is Mr. William A. Kley, who can be reached at (703)681-7574.

  
LEE THOMPSON  
Colonel, GS  
Director

Enclosure

CF:  
SAAG-PMF-E  
AMCIR-A



REPLY TO  
ATTENTION OF

DEPARTMENT OF THE ARMY  
HEADQUARTERS, U.S. ARMY MATERIEL COMMAND  
8001 EISENHOWER AVENUE, ALEXANDRIA, VA 22333 - 0001



AMCIR-A (36-2b)

27 September 1995


MEMORANDUM FOR MR. WILLIAM KLEY, U.S. ARMY CONTRACTING SUPPORT  
AGENCY, FALLS CHURCH, VA 22041-3201

SUBJECT: Department of Defense Inspector General Draft Report,  
Contractor's Performance on the Family of Medium Tactical  
Vehicles Program, Project SAL-0003.02 (AMC No. D9505-A)

1. We are enclosing our position on subject report IAW AR 36-2.  
We concur with the corrective actions taken by the U.S Army  
Tank-automotive and Armaments Command.
2. Point of contact for this action is Mr. Robert Kurzer,  
(703) 274-9025.
3. AMC -- America's Arsenal for the Brave.

FOR THE COMMANDER:

Encl  
as

  
BILLY K. SOLOMON  
Major General, USA  
Chief of Staff



AMSTA-CS-CJ (36-2b)

MEMORANDUM FOR Commander, U.S. Army Materiel Command, ATTN:  
AMCIR-A, 5001 Eisenhower Avenue, Alexandria, VA  
22333-0001

SUBJECT: DODIG Draft Report, Contractor's Performance on the Family of Medium Tactical  
Vehicles Program, Project 5AL-0003.02 (AMC No. D9505-A)

1. Reference memorandum, AMCIR-A, HQ, AMC, 2 August 1995, SAB.
2. This memorandum is to advise you that we partially concur with the DODIG finding and concur with Recommendations 1a and 1c. We nonconcur with Recommendation 1b and take exception with various facts presented in the draft report. The attached reply details our rationale and planned corrective actions.
3. Mr. Ronald J. Griesmayer, (810)574-7775, is the TACOM point of contact for this audit.

FOR THE COMMANDER:

Atch

/s/ 18 SEP 95  
PATRICK KIRBY  
Colonel, GS  
Chief of Staff

Revised

**COMMAND REPLY**  
**DOD Inspector General Draft Report**  
**Contractor's Performance on the FMTV Program**  
**U.S. Army Tank-automotive and Armament Command**

**FINDING:** The Contractor for the Family of Medium Tactical Vehicles (FMTV) Program hadn't attained the level of production necessary to meet contractual delivery schedules. The primary reason the Contractor was unable to meet delivery schedules was the Contractor proceeded with extensive production before resolving significant conditions that impacted its ability to produce vehicles. Another contributing factor was that the Army didn't hold the Contractor accountable for meeting delivery schedules and other provisions of the contract. As a result, the Army spent \$316 million on the production contract as of 31 May 1995 but hadn't received a single vehicle suitable for fielding. If corrective action isn't taken, the Army could make a significantly larger investment in vehicles that aren't suitable for fielding. Also, the Contractor's delinquency resulted in serious cost and readiness consequences for the DOD.

**ADDITIONAL FACTS:** Although we partially concur with your finding, we take exception to various statements in your draft report that are misleading and incorrect. Our discussion of these exceptions follows:

1. In your section titled "Contractor Accountability" (pages 9 and 10), you state the Contracting Officers didn't hold the Contractor accountable for meeting delivery schedules and other contract provisions. Further, the Contracting Officer didn't issue a cure notice advising the Contractor that the Army considered his performance to be in noncompliance with the contract. Finally, the Contracting Officer didn't ask the Contractor to show cause why the contract shouldn't be terminated for default. In effect, the report implies the Contracting Officer did nothing concerning the Contractor's performance. These statements are misleading. The Contracting Officer monitored the Contractor's performance and determined:

- There was a significant possibility the Contractor would successfully complete the program if given some additional time to correct test deficiencies.
- There were limited alternatives for procuring the FMTV Program.
- The costs of terminating this contract and starting another procurement were significant and would further delay the Army receiving acceptable vehicles.
- The Contractor alleged that the Government was substantially responsible for his delays and requested compensation totaling about \$49 million.

Accordingly, the Contracting Officer concluded it was not in the Government's best interest to issue a show cause letter. He also determined it was in the Government's best interest to establish revised delivery schedules. As a result, he issued Modification P00013 on 31 August 1993 and Modification P00042 on 25 July 1995. Modification P00013 identified consideration received by the Government for revising the delivery schedule. Both modifications also reserved the Government's right to obtain further consideration.

2. In your subparagraph titled "Liquidated Damages Clause" (pages 11 and 12), you state the Contracting Officer didn't put a liquidated damage clause in the contract because he believed it wasn't needed in a firm-fixed price contract. You concluded his reasons for not including a liquidated damages clause in the contract were invalid. We disagree with your conclusion. Liquidated damages clauses are only used in instances where delivery of items in a specific time period are vitally important. For example, we used such clauses during Operation Desert Storm. While the fleet of trucks the FMTV is replacing needs to be maintained longer because of delays in the FMTV Program, the overriding need of the Army is to field vehicles that meet user needs, even if more time is needed for testing and correcting problems. The Federal Acquisition Regulation 12.202 states the Contracting Officer should consider the probable effect on such matters as pricing, competition, costs, and difficulties of contract administration that the Government would incur by including liquidated damages in a contract. Further, the regulation stipulates the rate of liquidated damages used must be reasonable and considered on a case-by-case basis since liquidated damages, fixed without any reference to probable actual damages, may be held to be a penalty and therefore unenforceable. In our opinion, it is reasonable to expect a liquidated damages clause in a production contract would impact the competition and cost of the vehicles. It is also reasonable to expect the Contractor to include some or all of the costs of potential liquidated damages in the cost of the vehicles. In a complex production contract, such as the FMTV, it is difficult to ascertain that a contractor is solely responsible for production problems. For the FMTV, program complexities require day-to-day interaction between Contractor and Government personnel. Accordingly, it would become easy for the Contractor to allege the Government participated in, and contributed to, program delays. In addition, the Contractor would certainly challenge any attempt to enforce a liquidated damages clause and these costs may ultimately be deemed a penalty. For these reasons, we chose not to incorporate a liquidated damages clause in the FMTV contract. To add liquidated damages provisions to the contract at this time would require an agreement by the Contractor. In addition, the Contractor would be entitled to an equitable adjustment to the contract.

**RECOMMENDATION 1a:** We recommend that the Procuring Contracting Officer for the FMTV notify the Contractor of new dates for the Contractor to complete performance and to make deliveries.

**ACTION TAKEN:** Concur. As discussed above in paragraph 1, we issued Modification P00042 to the contract on 25 July 1995. This modification includes a new delivery schedule for the remainder of the program.

## Army Comments

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Final Report  
Reference

Revised

**RECOMMENDATION 1b:** We recommend that the Procuring Contracting Officer for the FMTV include a liquidated damages clause in the existing and future production contracts.

**ACTION TAKEN:** Nonconcur. For the reasons discussed above in paragraph 2, we have no intention of modifying the existing production contract to incorporate a liquidated damages clause. For future production contracts, we will determine the appropriateness of the clause at that time.

**RECOMMENDATION 1c:** We recommend that the Procuring Contracting Officer for the FMTV terminate the contract for default if the Contractor can't meet the revised schedule and can't show cause as to why the contract shouldn't be terminated.

**ACTION TAKEN:** Concur. Although we believe the Contractor will meet the revised contract requirements and will deliver vehicles acceptable to the Army (see paragraph 1 above), we will continue monitoring the Contractor's performance. The Contracting Officer began monitoring the Contractor's performance against the revised delivery schedules contained in Modification P00042 on 25 July 1995. If the Contractor fails to meet these requirements, appropriate business decisions will be made at that time. Among the alternatives available to the Contracting Officer is termination for default.

## **Audit Team Members**

This report was prepared by the Acquisition Management Directorate,  
Office of the Assistant Inspector General, DoD.

Donald E. Reed  
Rayburn H. Stricklin  
Robert L. Shaffer  
D. Michael Welborn  
Lisa E. Novis  
William R. Harshman  
Gilbert A. Nelson  
Stevenson A. Bolden  
John R. Huddleston  
Mary Ann Hourclé  
Toni R. King